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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,299	08/19/2003	Bettina Steinmann	USA.353	6650
22514 7590 03/22/2007 SUMMA, ALLAN & ADDITON 11610 N. COMMUNITY HOUSE ROAD, SUITE 200 CHARLOTTE, NC 28277			EXAMINER TENTONI, LEO B	
			ART UNIT 1732	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
2 MONTHS		03/22/2007	PAPER	

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Application Number: 10/644,299  
Filing Date: August 19, 2003  
Appellant(s): STEINMANN ET AL.

**MAILED**  
**MAR 22 2007**  
**GROUP 1700**

Melissa B. Pendleton  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed on 28 December 2006 appealing from the Office action mailed on 15 February 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

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The subject matter of independent claim 1 is summarized at page 6, second paragraph through page 7, first paragraph of the brief. The subject matter of dependent claims 18-21 is summarized at page 7, second and third paragraphs of the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: Claims 1-10 and 12-20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al (EP 0831373 A2). Claims 1-20 stand rejected under 35 U.S.C. 102(e) as being anticipated by Napadensky et al (U.S. Patent Application Publication 2003/0207959 A1). Claims 1-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Napadensky et al (U.S. Patent Application Publication 2003/0207959 A1). The rejection of claim 21 under 35 U.S.C. 102(b) as being anticipated by Watanabe et al (EP 0831373 A2), the rejection of claim 21 under 35 U.S.C. 102(e) as being anticipated by Napadensky et al (U.S. Patent Application Publication 2003/0207959 A1) and the rejection of claim 21 under 35 U.S.C. 103(a) as being unpatentable over Napadensky et al (U.S. Patent Application Publication 2003/0207959 A1) have all been withdrawn.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

2003/0207959 A1	NAPADENSKY et al	11-2003
0831373 A2	WATANABE et al	3-1998
0830928 B1	HARUTA et al	6-2002

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10 and 12-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Haruta et al (EP 0830928 B1).

Haruta et al (see the entire document, in particular, paragraphs [0011] - [0016] and [0031] - [0084]) teaches a process of making a three-dimensional article by stereolithography as claimed, including the use of a liquid radiation-curable composition having at least one filler comprising silica-type nanoparticles.

Claims 1-10 and 12-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al (EP 0831373 A2).

Watanabe et al (see the entire document, in particular, page 3, line 21 to page 10, line 26) teaches a process of making a three-dimensional article by stereolithography as claimed, including the use of a liquid radiation-curable composition having at least one filler comprising silica-type nanoparticles.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Napadensky et al (U.S. Patent Application Publication 2003/0207959 A1).

Napadensky et al (see the entire document, in particular, paragraphs [0010] and [0126] - [00130]) teaches a process of making a three-dimensional article as claimed, including the use of a liquid radiation-curable composition having at least one filler comprising silica-type nanoparticles. While Napadensky et al is primarily directed to three-dimensional printing (to make the three-dimensional article), Napadensky et al do also teach

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stereolithography as a process for making a three-dimensional article.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Napadensky et al (U.S. Patent Application Publication 2003/0207959 A1).

Napadensky et al (see the entire document, in particular, paragraphs [0010] and [0126] - [0130]) teaches a process of making a three-dimensional article as claimed, including the use of a liquid radiation-curable composition having at least one filler comprising silica-type nanoparticles, primarily by three-dimensional printing. However, the claimed stereolithography process would have been obvious to one of ordinary skill in the art at the time the invention was made in view of Napadensky et al principally because Napadensky et al also teaches stereolithography as a process for making a three-dimensional article.

#### **(10) Response to Argument**

Appellant argues (page 10) that Haruta et al does not teach the use of nanoparticles since the present application defines (page 6, lines 12-15) nanoparticles as having an average particle size ranging from about 10 to about 999 nanometers, while Haruta et al teaches an average particle size of 1 to 50 microns. Examiner responds that Haruta et al meets this limitation because the lower limit of the range taught by Haruta et al, namely 1 micron, is also 1000 nanometers (i.e., 1 micron



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= 1000 nanometers) and the instant specification (page 6, lines 12-15) recites "an average particle size in the range of about 10 to about 999 nm" (emphasis added).

Appellant argues (page 11) that Haruta et al does not teach the composition recited in claims 18-21. Examiner responds that Haruta et al does teach the composition recited in claims 18-21 (see especially paragraphs [0034], [0052], [0067] and [0071] of Haruta et al).

Appellant argues (page 12) that Watanabe et al does not teach the use of nanoparticles since the present application defines (page 6, lines 12-15) nanoparticles as having an average particle size ranging from about 10 to about 999 nanometers, while Watanabe et al teaches an average particle size of 1 to 50 microns. Examiner responds that Watanabe et al meets this limitation because the lower limit of the range taught by Watanabe et al, namely 1 micron, is also 1000 nanometers (i.e., 1 micron = 1000 nanometers) and the instant specification (page 6, lines 12-15) recites "an average particle size in the range of about 10 to about 999 nm" (emphasis added).

Appellant argues (page 14) that Napadensky et al does not teach a stereolithography process. Examiner responds that Napadensky et al is broadly directed to three-dimensional article building in general (paragraph [0002]), specifically

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three-dimensional printing (paragraph [0002]), and also teaches stereolithography (specifically, radiation curable compositions for stereolithography) at paragraph [0010]. The term "stereolithography" is an art-recognized term referring to a three-dimensional article building process involving applying material onto a substrate, curing the material to form a layer, applying a material onto the cured layer, curing the material to form another layer, and repeating these steps a desired number of times to form a desired three-dimensional article. Therefore, Napadensky et al does teach a stereolithography process (and also teaches three-dimensional printing).

Appellant argues (page 17) that Napadensky et al do not suggest a stereolithography process. Examiner responds that Napadensky et al is broadly directed to three-dimensional article building in general (paragraph [0002]), specifically three-dimensional printing (paragraph [0002]), and also teaches stereolithography (specifically, radiation curable compositions for stereolithography) at paragraph [0010]. The term "stereolithography" is an art-recognized term referring to a three-dimensional article building process involving applying material onto a substrate, curing the material to form a layer, applying a material onto the cured layer, curing the material to form another layer, and repeating these steps a desired number

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of times to form a desired three-dimensional article. Therefore, Napadensky et al does suggest a stereolithography process (and also teaches three-dimensional printing).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

*Leo B. Tentoni*

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Leo B. Tentoni

Primary Examiner

Group Art Unit 1732

Conferees:

*ca j*

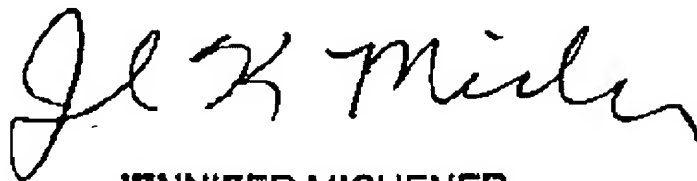
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Christina A. Johnson

Supervisory Patent Examiner

Group Art Unit 1732

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A handwritten signature in black ink, appearing to read "Jl K Michener". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

**JENNIFER MICHENER**  
**QUALITY ASSURANCE SPECIALIST**

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Jennifer K. Michener

Quality Assurance Specialist

Tech Center 1700